REMARKS

The Examiner is thanked for the thorough examination of the present application. The Office Action, however, tentatively rejected all claims 1-20. In response, Applicant submits the foregoing amendments and the following remarks. Specifically, claims 1, 3, 8, 10, 15-17, and 20 have been amended to further define certain features of those claimed embodiments, and claims 4, 5, 7, 11, 12, 14, 18, and 19 have been cancelled. Claims 1-3, 6, 8-10, 13, 15-17 and 20 remain pending in the application. Applicant submits that no new matter is added by these amendments.

Claim Objections

The Office Action objected to claims 16-20 for certain noted informalities. In response, claims 16, 17, and 20 have been amended. The amendments address and overcome the objections in accordance with the suggestion made by the Examiner. Therefore, the objections should be withdrawn.

Rejections under 35 U.S.C 112

The Office Action rejected claims 3, 10, and 17 under 35 U.S.C. § 112, second paragraph, because the claims claim a "reference range." These claims have been amended to specify that the predetermined reference range is a time interval, and the resource status data is fetched within the time interval. These amendments are believed to properly address and overcome the rejection. Accordingly, Applicant requests that the rejections be withdrawn.

Rejections under 35 U.S.C 101

The Office Action rejected claims 1-7 under 35 U.S.C. § 101, allegedly because the claimed embodiments are directed to non-statutory subject matter. Applicant has amended independent claim 1 to clearly overcome this rejection, by adding structural features (e.g., a CPU), which are clearly directed to more than just software or an abstract idea. Accordingly, the rejection should be withdrawn.

Rejections under 35 U.S.C 102(b)

Claims 1, 3, 6, 8, 10, 13, 15, 17 and 20 are rejected under 35 U.S.C 102(b) as allegedly being anticipated by Butt et al., U.S. Patent No. 5,889,944 (hereinafter "Butt"). Applicant respectfully request reconsideration and withdrawal of these rejections.

In regard to independent claims 1, 8 and 15, Butt does not teach or suggest what the Office Action relies upon it as supposedly teaching. Significantly, Butt fails to disclose, suggest, or teach, *inter alia*, the following feature recited by above claims of the present application:

> "fetching resource status data of at least one resource item of an application system, ***wherein the resource item comprises a central processing unit (CPU) and a disk of the application system, and the resource status data comprises data for the CPU use rate and data for the disk use rate***"; and
>
> "determining an execution time point for at least one process according to the resource status data ***using a neural network model, wherein the CPU use rate, the disk use rate and a peak time interval indicating a busy period of the application system are adopted as processing elements of the neural network model, and the resource status data is fed to the neural network model for calculating the execution time point for the process***".

In the Butt reference, jobs are distributed among servers. It is determined whether a server is free to accept a requested job. If so, the job is loaded to the server. If not, the job is put on a queue, and waits for execution. When any server becomes free, the job on the queue is loaded to the server for execution. In the Butt reference, it is clear that ***the jobs are executed based on the availability of servers. That is, the servers are equivalent to the resource item of the application***. In the application, however, ***the resource item comprises a central processing unit and a disk of the application system, and the resource status data comprises data for the CPU use rate and data for the disk use rate***. The resource items of the two applications are significantly different. For at least this reason, the rejections should be withdrawn.

In addition, ***Butt discloses that a job can be executed if there is a free server***. In the present application, however, *the calculation for the execution time point of a process is based on* ***the resource status data and a peak time interval indicating a busy period of the application system***. Nowhere in the Butt reference does it discloses the job to be executed considering the peak time interval of the whole system. Further, in the application, ***the execution time point for process is calculated using a neural network model, wherein the CPU use rate, the disk use rate and a peak time interval of the application system are adopted as processing elements of the neural network model, and the resource status data is fed to the neural network model for calculating the execution time point for the process***. Nowhere in the Butt reference does it discloses the execution time for a job is calculated, and is calculated using a neural network model. For at least this additional reason, the rejection of independent claims 1, 8, and 15 should be withdrawn.

Insofar as all remaining claims depend from either claim 1, claim 8, or claim 15, all claims patently define over the cited art.

Rejections Under 35 U.S.C. § 103(a)

As set forth above, the independent claims define over Butt, and therefore all outstanding rejections should be withdrawn. In addition, various dependent claims have been rejected under various combinations of Butt, Jindal (US 6,327,622), Yamagashi (US 5,870,604), Aref (US 6,023,720), and Bigus (US 5,442,730). With regard to these rejections, Applicant offers the following general comments and distinctions.

In the Yamagashi reference, a processor of smaller load (the number of jobs waiting for execution, the CPU using rate, the I/O using rate, and the memory using rate) is dispatched for a job. It is clear that, ***nowhere in the Yamagashi reference does it discloses a disk use rate and a peak time interval are considered to determine the execution time point for process***.

Additionally, ***the objective of the Aref reference is to support simultaneous read and write requests in the presence of real-time requirements and high bandwidth demands***. As the Examiner asserts, Aref minimizes the amount of disk reads that do not meet their presentation deadlines, and avoids indefinite postponement and large buffer sizes in the case of disk write. ***The objective of the application, however, is to dynamically calculate an execution time point for a process according to the resource status of the resource item***. *The objectives of the two applications are totally different.* Additionally, it is understood that ***the available disk bandwidth is different than the disk use rate. The disk bandwidth means the limitation that data (read and***

write requests) can be simultaneously accessed to the disk. The disk use rate of the application, however, means the occupied space of the disk. It is different. Similarly, ***nowhere in the Aref reference does it disclose a disk use rate and a peak time interval are considered to determine the execution time point for process***.

Additionally, ***Bigus only relevantly discloses a neural network is used for job schedule***. It is understood that, in the application, the calculation for execution time point using the neural network model is well defined, wherein the CPU use rate, the disk use rate and a peak time interval of the application system are adopted as processing elements of the neural network model, and the resource status data is fed to the neural network model for calculating the execution time point for the process. ***Nowhere in the Bigus reference does it discloses the execution time for a job is calculated using a neural network model according to the CPU use rate, the disk use rate and a peak time interval of the application system***.

It is understood that, the Examiner cited several references (Butt, Yamagashi, Aref, Bigus, and others) to reject the application. The fact that a large number of references (over three) must be combined to meet the invention is evidence of unobviousness.

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this submission. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,

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By: _____

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